

favoured during second breeding season.

Nautiyal (1994) found that alteration in the sex ratio of *Tor tor* is initiated by the pre-spawning migratory phase itself in the brooder population only. Moreover, at a particular spawning site, the brooder males tend to be in surplus number and stay longer; the brooder females tend to leave the spawning site soon after spawning. This causes a change in the sex ratio which has its own adaptive significance for the control mechanism of reproduction and sex composition of a reproducing population (Nikolskii 1980). More information on sex ratio and sex composition of population-related species of schizothoracids from other hillstreams would present a total picture.

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28. ON THE SPECIFIC IDENTITY OF *OMPOK BIMACULATUS* (SILURIFORMES: SILURIDAE)

(With one plate)

The genus *Ompok* Lacepede is currently represented by four species in the Indian region

viz. *O. bimaculatus* (Bloch), *O. malabaricus* (Val.), *O. pabda* (Ham. Buch.) and *O. pabo* (Ham.

Buch.). *O. malabaricus* is restricted to the western face of the Western Ghats, while the other species are present throughout India and are widely distributed in the Oriental region. These species are mostly distinguished by the relative lengths of the maxillary barbels and the anal ray count; the maxillary barbels are longest in *bimaculatus*, followed by *malabaricus*, *pabda* and the smallest in *pabo*.

Hamilton-Buchanan (1822) distinguished 5 species under the genus *Silurus* (referable to *Ompok*) based on maxillary barbel length and the number of anal fin rays - *pabda* (A. 54), *cechra* (A. 67), *carnio* (A. 69), *duda* and *pabo* (A. 73), the long barbels reaching mid body in *canio* and *duda*, beyond pectoral in *pabda* and *cechra* and no further than head in *pabo*. Day (1877), observing wide variations in anal ray counts in *bimaculatus* (A. 60-75), considered *cechra*, *canio* and *duda* its synonyms. He further distinguished the species on the basis of the shape of the caudal fin and the fusion or otherwise of anal fin with caudal; the same was also followed by Misra (1976) in his revisionary work.

Talwar and Jhingran (1991), who considered *sindensis* and *gangeticus* synonyms of *bimaculatus*, while basing their key on maxillary barbel length and anal ray count indicated that the latter in *bimaculatus* varies in number from 57-58. Their figure, on the contrary, shows 76 rays. Their book 'INLAND FISHES OF INDIA AND ADJACENT COUNTRIES' being currently followed by several fish taxonomists may lead to misidentification of the species, for a fish with long maxillary barbel and an anal ray count of more than 63 may be taken for *O. malabaricus*.

If one were to follow Talwar and Jhingran (1991), the anal rays in *bimaculatus* should vary in number from 47-75, since *sindensis* has 47 rays according to the original author and in *gangeticus* it varies from 70-78 (Misra, 1976). On the basis of studies carried out on specimens collected recently from Manimuthar in Tamil Nadu and Brahmaputra in Assam (Plate 1) and observations made by earlier workers like Day (1875-78) and Misra (1976), it is apparent that in *bimaculatus* the number of anal rays varies from 60-75. Though Talwar and Jhingran (1991) treated *sindensis*, which has 47 anal rays, as a synonym of *bimaculatus*, yet in all likelihood this and *gangeticus* may be valid species because, unlike in *bimaculatus*, in the other species the anal is united to the caudal. Besides, there is wide disparity in the number of anal rays in typical *sindensis* in relation to *bimaculatus*. But their exact systematic position should await further studies on more material.

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Rema Devi & Emilyamma: *Ompok bimaculatus*



Lateral view of *Ompok bimaculatus* (Bloch), 171.0 mm TL, F. 4709 ZSI/SRS